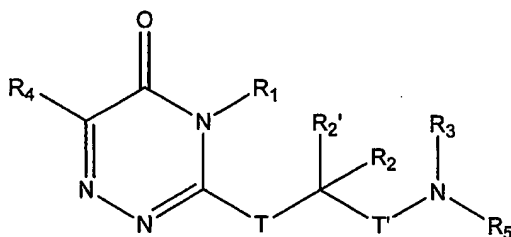


What is claimed is:

1. A compound selected from the group represented by Formula I:



Formula I

wherein:

T and T' are independently a covalent bond or optionally substituted lower alkylene;

R₁ is chosen from hydrogen, optionally substituted alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, and optionally substituted heteroaralkyl;

R₂ and R_{2'} are independently chosen from hydrogen, optionally substituted alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, and optionally substituted heteroaralkyl; or R₂ and R_{2'} taken together form an optionally substituted 3- to 7-membered ring;

R₃ is chosen from hydrogen, optionally substituted alkyl-, optionally substituted aryl-, optionally substituted aralkyl-, optionally substituted heteroaryl-, optionally substituted heteroaralkyl-, optionally substituted heterocyclyl, -C(O)-R₆, and -S(O)₂-R_{6a};

R₅ is chosen from hydrogen, optionally substituted alkyl-, optionally substituted aryl-, optionally substituted aralkyl-, optionally substituted heteroaralkyl-, and optionally substituted heterocyclyl-;

R₆ is chosen from hydrogen, optionally substituted alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, optionally substituted heteroaralkyl, R₇O- and R₁₂-NH-;

R_{6a} is chosen from optionally substituted alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, optionally substituted heteroaralkyl, and R₁₂-NH-;

or R₅ taken together with R₃, and the nitrogen to which they are bound, form an optionally substituted 5- to 12-membered nitrogen-containing heterocycle, which optionally incorporates from one to two additional heteroatoms, selected from N, O, and S in the heterocycle ring;

or R₅ taken together with R₂ form an optionally substituted 5- to 12-membered nitrogen-containing heterocycle, which optionally incorporates from one to two additional heteroatoms, selected from N, O, and S in the heterocycle ring;

R₇ is chosen from optionally substituted alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, and optionally substituted heteroaralkyl;

R₁₂ is chosen from hydrogen, optionally substituted alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, and optionally substituted heteroaralkyl; and

R₄ is chosen from hydrogen, optionally substituted alkyl, optionally substituted alkoxy, halogen, hydroxyl, nitro, cyano, optionally substituted amino, alkylsulfonyl, alkylsulfonamido, alkylthio, carboxyalkyl, aminocarbonyl, aryloxy, heteroaryloxy, optionally substituted N-heterocyclyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaralkyl and optionally substituted heteroaryl;

a pharmaceutically acceptable salt of a compound of Formula I;

a pharmaceutically acceptable solvate of a compound of Formula I; or

a pharmaceutically acceptable solvate of a pharmaceutically acceptable salt of a compound of Formula I.

2. The compound of Claim 1 comprising one or more of the following:

T and T' are each a covalent bond;

R₁ is selected from hydrogen, optionally substituted C₁-C₄ alkyl, optionally substituted phenyl-C₁-C₄-alkyl-, optionally substituted naphthylmethyl, optionally substituted phenyl, and naphthyl;

R₂ is optionally substituted C₁-C₄ alkyl;

R₂' is hydrogen or optionally substituted C₁-C₄ alkyl;

R₃ is -C(O)-R₆ or S(O)₂-R_{6a};

R₄ is hydrogen, halo, hydroxyl, optionally substituted lower alkyl, optionally substituted aryl, alkoxy, cyano, substituted amino, carbamyl, aryloxy, heteroaryloxy,

heteroaryl, or optionally substituted N-heterocyclyl;

R_6 is selected from optionally substituted C_1-C_8 alkyl, optionally substituted aryl- C_1-C_4 -alkyl-, optionally substituted heteroaryl- C_1-C_4 -alkyl-, optionally substituted heteroaryl, optionally substituted aryl, R_7O - and $R_{12}NH$ -,

R_{6a} is selected from C_1-C_{13} alkyl; phenyl; naphthyl; phenyl substituted with halo, lower alkyl, lower alkoxy, nitro, methylenedioxy, or trifluoromethyl; biphenyl and heteroaryl;

R_7 is chosen from optionally substituted alkyl and optionally substituted aryl;

R_{12} is chosen from optionally substituted alkyl and optionally substituted aryl; and

R_5 is chosen from hydrogen, optionally substituted C_1-C_{13} alkyl, optionally substituted aryl, optionally substituted aryl- C_1-C_4 -alkyl-, optionally substituted heterocyclyl, and optionally substituted heteroaryl- C_1-C_4 -alkyl-.

3. The compound of Claim 2 comprising one or more of the following:

R_1 is naphthyl, phenyl, bromophenyl, chlorophenyl, methoxyphenyl, ethoxyphenyl, tolyl, dimethylphenyl, chlorofluorophenyl, methylchlorophenyl, ethylphenyl, phenethyl, benzyl, chlorobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, hydroxybenzyl, dichlorobenzyl, dimethoxybenzyl, or naphthylmethyl;

R_2 is hydrogen;

R_5 is optionally substituted C_1-C_4 alkyl;

R_3 is $-C(O)R_6$;

R_6 is chosen from phenyl; substituted phenyl; benzyl; phenoxyethyl-; halophenoxyethyl-; phenylvinyl-; heteroaryl-; substituted heteroaryl-; C_1-C_4 alkyl substituted with C_1-C_4 alkoxy-; and benzyloxyethyl-;

R_4 is chosen from hydrogen, hydroxyl, halo, optionally substituted lower alkyl, lower alkoxy, optionally substituted phenyl, and cyano;

R_5 is selected from hydrogen, C_1-C_4 alkyl; cyclohexyl; phenyl substituted with hydroxyl, C_1-C_4 alkoxy or C_1-C_4 alkyl; benzyl; and R_{11} -alkylene-; and

R_{11} is hydroxyl, carboxy, $(C_1-C_4$ alkoxy)carbonyl-, $di(C_1-C_4$ alkyl)amino-, $(C_1-C_4$ alkyl)amino-, amino, $(C_1-C_4$ alkoxy)carbonylamino-, C_1-C_4 alkoxy-, or optionally substituted N-heterocyclyl-.

4. The compound of Claim 3 comprising one or more of the following:

R₁ is benzyl, halobenzyl, methylbenzyl, methoxylbenzyl, cyanobenzyl, hydroxybenzyl, or naphthylmethyl;

R₂ is chosen from methyl, ethyl, propyl, butyl, methylthioethyl, methylthiomethyl, aminobutyl, (CBZ)aminobutyl, cyclohexylmethyl, benzyloxymethyl, methylsulfinylethyl, methylsulfinylmethyl, and hydroxymethyl;

R_{2'} is hydrogen;

R₄ is optionally substituted methyl or optionally substituted phenyl;

R₆ is tolyl, halophenyl, methylhalophenyl, hydroxymethylphenyl, halo(trifluoromethyl)phenyl-, methylenedioxyphenyl, formylphenyl or cyanophenyl; and

R₅ is R₁₁-alkylene- wherein R₁₁ is amino, C₁-C₄ alkylamino-, di(C₁-C₄ alkyl)amino-, C₁-C₄ alkoxy-, hydroxyl, or N-heterocyclyl.

5. The compound of Claim 4 comprising one or more of the following:

R₁ is benzyl;

R_{2'} is hydrogen;

R₂ is ethyl or propyl; and

R₅ is aminoethyl, aminopropyl, aminobutyl, aminopentyl, aminoethyl, methylaminoethyl, methylaminopropyl, methylaminobutyl, methylaminopentyl, methylaminoethyl, dimethylaminoethyl, dimethylaminopropyl, dimethylaminobutyl, dimethylaminopentyl, dimethylaminoethyl, ethylaminoethyl, ethylaminopropyl, ethylaminobutyl, ethylaminopentyl, ethylaminoethyl, diethylaminoethyl, diethylaminopropyl, diethylaminobutyl, diethylaminopentyl, or diethylaminoethyl.

6. The compound of Claim 5 wherein R₂ is i-propyl

7. The compound of Claim 1 comprising one or more of the following:

T and T' are each a covalent bond;

R₁ is selected from hydrogen, optionally substituted C₁-C₄ alkyl, optionally substituted phenyl-C₁-C₄-alkyl-, optionally substituted naphthylmethyl, optionally substituted phenyl, and naphthyl.

R₂ is optionally substituted C₁-C₄ alkyl;

R_{2'} is hydrogen or optionally substituted C₁-C₄ alkyl;

R₄ is hydrogen, halo, hydroxyl, optionally substituted lower alkyl, optionally

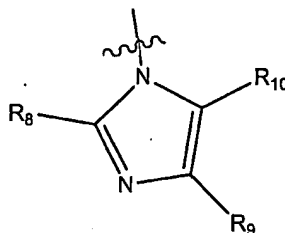
substituted aryl, alkoxy, cyano, substituted amino, carbamyl, aryloxy, heteroaryloxy, heteroaryl, or optionally substituted N-heterocyclyl;

R_6 is selected from optionally substituted C_1 - C_8 alkyl, optionally substituted aryl- C_1 - C_4 -alkyl-, optionally substituted heteroaryl- C_1 - C_4 -alkyl-, optionally substituted heteroaryl, optionally substituted aryl, R_7 O- and R_{12} -NH-,

R_7 is chosen from optionally substituted alkyl and optionally substituted aryl;

R_{12} is chosen from optionally substituted alkyl and optionally substituted aryl; and

R_3 taken together with R_5 and the nitrogen to which they are bound, forms an optionally substituted imidazolyl ring of the formula:



wherein

R_8 is chosen from hydrogen, optionally substituted alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaralkyl, and optionally substituted heteroaryl; and

R_9 and R_{10} are independently hydrogen, optionally substituted alkyl, optionally substituted aryl, or optionally substituted aralkyl.

8. The compound of Claim 7 comprising one or more of the following:

R_1 is chosen from naphthyl, phenyl, bromophenyl, chlorophenyl, methoxyphenyl, ethoxyphenyl, tolyl, dimethylphenyl, chlorofluorophenyl, methylchlorophenyl, ethylphenyl, phenethyl, benzyl, chlorobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, hydroxybenzyl, dichlorobenzyl, dimethoxybenzyl, or naphthylmethyl;

R_2 is hydrogen;

R_2 is optionally substituted C_1 - C_4 alkyl;

R_6 is chosen from phenyl; substituted phenyl; benzyl; phenoxymethyl-;

halophenoxymethyl-; phenylvinyl-; heteroaryl-; substituted heteroaryl-; C₁-C₄ alkyl substituted with C₁-C₄ alkoxy-; and benzyloxymethyl-;

R₄ is chosen from hydrogen, hydroxyl, halo, optionally substituted lower alkyl, lower alkoxy, optionally substituted phenyl, and cyano; and

R₈ is aryl, substituted aryl, aralkyl, heteroaryl, substituted heteroaryl, heteroaralkyl, substituted aralkyl, or substituted heteroaralkyl.

9. The compound of Claim 1 comprising one or more of the following:

T and T' are each a covalent bond;

R₁ is selected from hydrogen, optionally substituted C₁-C₄ alkyl, optionally substituted phenyl-C₁-C₄-alkyl-, optionally substituted naphthylmethyl, optionally substituted phenyl, and naphthyl;

R₂ is optionally substituted C₁-C₄ alkyl;

R₂' is hydrogen or optionally substituted C₁-C₄ alkyl;

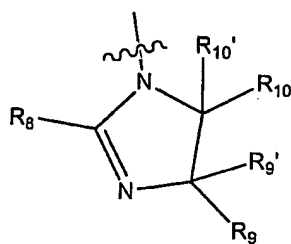
R₄ is hydrogen, halo, hydroxyl, optionally substituted lower alkyl, optionally substituted aryl, alkoxy, cyano, substituted amino, carbamyl, aryloxy, heteroaryloxy, heteroaryl, or optionally substituted N-heterocyclyl;

R₆ is selected from optionally substituted C₁-C₈ alkyl, optionally substituted aryl-C₁-C₄-alkyl-, optionally substituted heteroaryl-C₁-C₄-alkyl-, optionally substituted heteroaryl, optionally substituted aryl, R₇O- and R₁₂-NH-,

R₇ is chosen from optionally substituted alkyl and optionally substituted aryl;

R₁₂ is chosen from optionally substituted alkyl and optionally substituted aryl; and

R₃ taken together with R₅ and the nitrogen to which they are bound, forms an optionally substituted imidazolyl ring of the formula:



wherein,

R_8 is chosen from hydrogen, optionally substituted alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaralkyl, and optionally substituted heteroaryl; and

R_9 , R_9' , R_{10} , and R_{10}' are independently chosen from hydrogen, optionally substituted alkyl, optionally substituted aryl, and optionally substituted aralkyl.

10. The compound of Claim 9 comprising one or more of the following:

R_1 is chosen from naphthyl, phenyl, bromophenyl, chlorophenyl, methoxyphenyl, ethoxyphenyl, tolyl, dimethylphenyl, chlorofluorophenyl, methylchlorophenyl, ethylphenyl, phenethyl, benzyl, chlorobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, hydroxybenzyl, dichlorobenzyl, dimethoxybenzyl, or naphthylmethyl;

R_2 is hydrogen;

R_2 is optionally substituted C_1 - C_4 alkyl;

R_6 is chosen from phenyl; substituted phenyl; benzyl; phenoxymethyl-; halophenoxymethyl-; phenylvinyl-; heteroaryl-; substituted heteroaryl-; C_1 - C_4 alkyl substituted with C_1 - C_4 alkoxy-; and benzyloxymethyl-;

R_4 is chosen from hydrogen, hydroxyl, halo, optionally substituted lower alkyl, lower alkoxy, optionally substituted phenyl, and cyano;

R_8 is aryl, substituted aryl, aralkyl, heteroaryl, substituted heteroaryl, heteroaralkyl, substituted aralkyl, or substituted heteroaralkyl; and

R_9 , R_9' , R_{10} , and R_{10}' are independently selected from the group consisting of hydrogen and optionally substituted lower alkyl.

11. The compound of Claim 1 wherein

T and T' are absent;

R₁ is benzyl, halobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, hydroxybenzyl, or naphthylmethyl;

R₂ is optionally substituted C₁-C₄ alkyl;

R_{2'} is hydrogen;

R₄ is optionally substituted methyl or optionally substituted phenyl;

R₃ is hydrogen; and

R₅ is hydrogen.

12. The compound of Claim 1 wherein

T and T' are absent;

R₁ is benzyl, halobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, hydroxybenzyl, or naphthylmethyl;

R₂ is optionally substituted C₁-C₄ alkyl;

R_{2'} is hydrogen;

R₄ is optionally substituted methyl or optionally substituted phenyl;

R₃ is -C(O)R₆;

R₆ is optionally substituted phenyl; and

R₅ is optionally substituted alkyl.

13. The compound of Claim 1 wherein

T and T' are absent;

R₁ is benzyl, halobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, hydroxybenzyl, or naphthylmethyl;

R₂ is optionally substituted C₁-C₄ alkyl;

R_{2'} is hydrogen;

R₄ is optionally substituted methyl or optionally substituted phenyl;

R₃ is optionally substituted phenyl, heterocyclyl, or naphthyl; and

R₅ is optionally substituted alkyl.

14. The compound of Claim 1 wherein

T and T' are absent;

R₁ is benzyl, halobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, hydroxybenzyl, or naphthylmethyl;

R₂ is optionally substituted C₁-C₄ alkyl;

R₂' is hydrogen;

R₄ is optionally substituted methyl or optionally substituted phenyl; and

R₃ and R₅ taken together form an optionally substituted imidazoliny ring.

15. The compound of Claim 1 wherein

T and T' are absent;

R₁ is benzyl, halobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, hydroxybenzyl, or naphthylmethyl;

R₂ is optionally substituted C₁-C₄ alkyl;

R₂' is hydrogen;

R₄ is optionally substituted methyl or optionally substituted phenyl; and

R₃ taken together with R₅ form an optionally substituted imidazolyl ring.

16. The compound of Claim 1 wherein

T and T' are absent;

R₁ is benzyl, halobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, hydroxybenzyl, or naphthylmethyl;

R₂ is optionally substituted C₁-C₄ alkyl;

R₂' is hydrogen;

R₄ is optionally substituted methyl or optionally substituted phenyl; and

R₃ and R₅ taken together form an optionally substituted imidazolidiny ring.

17. The compound of Claim 1 wherein

T and T' are absent;

R₁ is benzyl, halobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, hydroxybenzyl, or naphthylmethyl;

R₂ is optionally substituted C₁-C₄ alkyl;

R₂' is hydrogen;

R₄ is optionally substituted methyl or optionally substituted phenyl; and

R₃ and R₅ taken together form an optionally substituted piperaziny ring.

18. The compound of Claim 1 wherein

T and T' are absent;

R₁ is benzyl, halobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, hydroxybenzyl, or naphthylmethyl;

R₂ is optionally substituted C₁-C₄ alkyl;

R₂' is hydrogen;

R₄ is optionally substituted methyl or optionally substituted phenyl; and

R₃ and R₅ taken together form an optionally substituted diazepinoyl ring.

19. The compound of Claim 1 wherein

T and T' are absent;

R₁ is most preferably chosen from benzyl, halobenzyl, methylbenzyl, methoxybenzyl, cyanobenzyl, hydroxybenzyl, or naphthylmethyl;

R₂ is optionally substituted C₁-C₄ alkyl;

R₂' is hydrogen;

R₄ is optionally substituted methyl or optionally substituted phenyl;

R₅ is optionally substituted alkyl;

R₃ is -SO₂R_{6a}, and

R_{6a} is substituted phenyl or naphthyl.

20. The compound of any of the above claims wherein the stereogenic center to which R₂ and R₂' is attached is of the R configuration.

21. A pharmaceutical composition comprising a pharmaceutical excipient and a therapeutically effective amount of a compound of any of Claims 1-19.

22. A method of treatment comprising administering an effective amount of a compound of any of Claims 1-19 to a patient suffering from a cellular proliferative disease.

23. The method of Claim 22 wherein the cellular proliferative disease is cancer, hyperplasia, restenosis, cardiac hypertrophy, an immune disorder or inflammation.

24. A method of treatment for a cellular proliferative disease comprising administering to a patient suffering therefrom a compound of Claim 1 in an amount sufficient to

modulate KSP kinesin activity in cells affected with the disease.

25. A kit comprising a compound of any of Claims 1-19 and a package insert or other labeling including directions for treating a cellular proliferative disease by administering an effective amount of said compound.